

Research report

Adjustment disorder and the course of the suicidal process in adolescents

Gwendolyn Portzky*, Kurt Audenaert, Kees van Heeringen

Unit for Suicide Research, Department of Psychiatry, University Hospital Gent, De Pintelaan 185, 9000 Gent, Belgium

Received 4 January 2005; received in revised form 5 April 2005; accepted 25 April 2005

Available online 6 July 2005

Abstract

Background: Adjustment disorders are often associated with suicidal behaviour but there is little information regarding the nature of the relationship and the effect of adjustment disorders on the suicidal process. The authors' goal was to investigate the association of adjustment disorders (with depressed mood) and suicide in adolescents by means of a psychological autopsy study.

Method: Relatives and other informants of 19 suicide victims were interviewed by means of a semi-structured interview schedule. Differences in duration of the suicidal process between suicide victims diagnosed with adjustment disorder and suicide cases diagnosed with other psychiatric disorders were examined.

Results: The suicidal process was significantly shorter in suicide victims diagnosed with adjustment disorder compared with suicide cases diagnosed with other disorders. No indications of a history of emotional or behavioural problems during early adolescence were found in suicide cases diagnosed with adjustment disorder.

Limitations: The study sample consists of a small sample size and retrospective interviews of relatives were used.

Conclusions: The suicidal process in suicide victims diagnosed with adjustment disorder appears to be short and rapidly evolving without any prior indications of emotional or behavioural problems. The importance of assessing the suicidal risk in patients diagnosed with adjustment disorder is underlined.

© 2005 Elsevier B.V. All rights reserved.

Keywords: Adolescents; Suicidal process; Adjustment disorder with depressed mood

1. Introduction

A review of the literature regarding adjustment disorders indicates that there are relatively few studies of the disorder with additional difficulties in establish-

ing its construct validity (Kovacs et al., 1994; Newcorn and Strain, 1992). Nonetheless, the diagnosis of adjustment disorder is frequently made with an estimated incidence of 5–21% in psychiatric consultation services for adults (Jones et al., 1999). Although there is less information regarding the estimated incidence of adjustment disorder in adolescents, there are several reports indicating that adjustment disorder is more

* Corresponding author. Tel.: +32 92404848; fax: +32 92404989.
E-mail address: Gwendolyn.portzky@ugent.be (G. Portzky).

often found in young people (Despland et al., 1995; Snyfer et al., 1990).

Adjustment disorders are typically associated with less severe symptoms, a lower level of impairment and a reasonably good short-term prognosis when compared to other psychiatric disorders (Greenberg et al., 1995; Kovacs et al., 1994). However, there is a high association between adjustment disorders and suicidal behaviour. Adjustment disorder with depressed mood is the most common diagnosis in suicide attempts in young people (Bhatia et al., 2000; Ho Kong Wai et al., 1999; Skopek and Perkins, 1998). With regard to fatal suicide, there is however more evidence of the high prevalence of major depression and substance abuse. Nonetheless, psychological autopsy studies have shown a prevalence of adjustment disorder among suicide victims ranging between 5% and 36% (Cavanagh et al., 1999; Schaffer et al., 1996; Henriksson et al., 1993; Marttunen et al., 1991; Rich et al., 1990).

Adjustment disorder is thus a relatively common diagnosis among suicide attempters and suicide victims. However, little is known about the effect of this diagnosis on the suicidal process and thus on the possibilities to prevent suicide, particularly among young people. The concept of the suicidal process is used to describe the onset and development of suicidality as a process within the individual and in interaction with surrounding people. The suicidal process starts with suicidal ideation and implies a progression of suicidality which can evolve through ideation, plans about taking one's life and communication regarding suicidal ideation, and growing through often recurrent suicide attempts with increasing lethality and suicide intent, and ends with fatal suicide (van Heeringen, 2001). More knowledge regarding the suicidal process and adjustment disorder could be crucial for the development of prevention strategies and for clinical practice.

The psychological autopsy study of Runeson et al. (1996) in 15–29 year olds is, to our knowledge, the only study examining the suicidal process in young people according to psychiatric disorder. The results showed that there were no differences in duration of the suicidal process between adjustment disorder and major depression but differences could be found between adjustment disorder and schizophrenia. The duration of the suicidal process was however mea-

sured by the time interval between the suicide and first reported suicidal communication or observed attempt, which can not be considered as the starting-point of the process.

This study aimed at further establishing the effect of adjustment disorder on the course of the suicidal process, measured from the starting-point, and examining the possible differences with other psychiatric diagnoses.

2. Method

The data was provided by a case-control psychological autopsy study. For the purpose of the present study, only data regarding suicide cases will be discussed. Inclusion criteria regarding suicide cases included: relatives or other informants of adolescents (aged 15–19) with a definitive verdict of suicide in Flanders (Dutch-speaking part of Belgium) during 1997–2001. A total of 32 relatives and other informants regarding 19 adolescent suicide victims were recruited from support-groups for surviving relatives.

Written informed consent was obtained after complete description of the study to the informants.

A semi-structured interview schedule, developed and previously piloted by Houston et al. (2001) was used. The interview schedule was translated into Dutch and had been previously piloted. Informants were asked about several aspects including circumstances of the death (presuicidal behaviour, presuicidal communication, method, intent), childhood, adolescence, family and interpersonal relationships, life events, educational and occupational history, financial and legal problems, medical history, psychiatric history and previous suicidal behaviour.

Psychiatric diagnosis was made using a semi-structured interview schedule based on ICD-10 criteria. Allocation to diagnostic categories was made by two senior psychiatrists separately. Inter-rater reliability was measured by using the kappa statistic. In case of diagnostic disagreement, a reanalysis was done by both psychiatrists to reach a consensus.

The duration and course of the suicidal process were assessed using four different measures: (1) the start of the suicidal process was assessed by the first signs of suicidal ideation. Due to the “hidden” character of this suicidal component, the information

could only be derived from letters, journals and notes left by the adolescents; (2) first communication regarding suicidal ideation; (3) first suicide attempt; (4) last suicide attempt prior to the suicide.

Beck's Suicidal Intent Scale (Beck et al., 1974) was used to evaluate the severity of suicidal intent.

One psychologist was assigned as interviewer as it is reported that having fewer interviewers result in higher reliability in psychiatric diagnoses and smaller methodological error variance (Isometsä, 2001).

This study was approved by the Ethical Committee of the University Hospital Ghent.

Kaplan Meier Survival analysis with significance testing in accordance with Breslow (Generalized Wilcoxon) was used for the duration of the suicidal process. Other comparisons were examined by using Independent Samples *t*-test and chi-square tests or Fisher's exact tests.

3. Results

All suicide cases were diagnosed with a ICD-10 psychiatric disorder at the time of death. The most common disorders were affective disorders ($N=13$; 68.5%) including 12 subjects (63.2%) with a depressive episode and one subject with bipolar affective disorder, current episode mixed. Adjustment disorder with depressed mood was diagnosed in four suicide victims (21.1%) as principal diagnosis with only one subject diagnosed with co-morbid substance abuse.¹

Survival analysis regarding the suicidal process measured from the first signs of suicidal ideation to the suicide resulted in a significant difference (Breslow=14.45; $df=4$; $p<0.01$) between suicide victims diagnosed with adjustment disorder (M time=3 months) and victims diagnosed with other psychiatric disorders (M time depression=30 months; M time substance abuse=60 months; M time schizo-affective disorder=24 months; M time eating disorder=48 months). The temporal distribution of the suicidal process measured from the first signs of suicidal

ideation to the suicide according the psychiatric disorder is shown in the Kaplan–Meier curve (Fig. 1).

Suicide cases diagnosed with adjustment disorder also showed a much shorter time interval between the first communication and their suicide (M time=2 months) compared to those with other diagnoses (M time=22 months) (Breslow=7.97; $df=1$; $p<0.01$).

None of the four suicide victims diagnosed with adjustment disorder had engaged in previous suicidal behaviour compared to 7 of the 15 suicide cases diagnosed with other disorders. As a result, the survival analysis regarding the suicidal process measuring the time from the suicide attempt to the suicide did not include suicide cases diagnosed with adjustment disorder and was not significant.

Further analysis revealed that there was a significant difference regarding emotional or behavioural problems in early adolescence (Fisher exact test=0.033) with none of the suicide cases diagnosed with adjustment disorder having any emotional or behavioural problems compared to 10 of the 15 other suicide cases.

There were no differences between suicide cases diagnosed with adjustment disorder and suicide cases with other psychiatric disorders regarding the number and type of life events experienced in the past year.

The analysis of the SIS revealed that there were no differences ($t=-.659$; $df=17$; $p=0.519$) between suicide cases with adjustment disorder (M SIS=21.5) and cases with other psychiatric disorders (M SIS=23.2) regarding the severity of the suicidal intent of the suicide.

4. Discussion

This study showed that one fifth of all suicide cases were diagnosed with adjustment disorder with depressed mood. More importantly, the results indicate the incidence of a very short suicidal process in victims diagnosed with adjustment disorder with an average duration of 3 months between the first signs of suicidal ideation and the suicide, a mean duration of 2 months between the first communication and the suicide and without a history of previous suicide attempts. There were also no indications of previous emotional or behavioural problems during early adolescence in those diagnosed with adjustment disorder.

¹ As it is mentioned by the DSM-IV diagnostic features, adjustment disorder may be diagnosed in the presence of another Axis I or II disorder if the latter does not account for the pattern of symptoms that have occurred in response to the stressor.

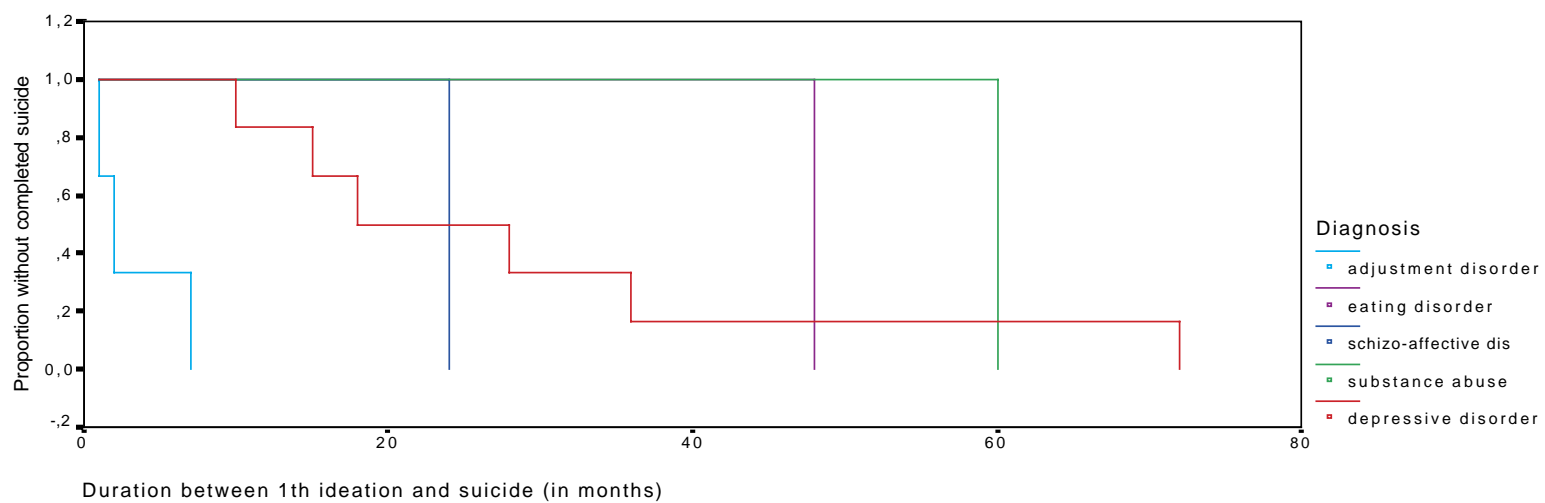


Fig. 1. Temporal distribution of the suicidal process (first signs of suicidal ideation to the suicide) according to psychiatric disorder.

Although this sample is too small for extensive generalizations, the results suggest that the suicidal process in young suicide victims diagnosed with adjustment disorder was triggered by the experience of an adverse life event and resulted in a rapidly evolving suicidal process ending in a fatal suicide with a suicidal intent as strong as compared to those suicide victims diagnosed with other psychiatric disorders and with a more prolonged and slowly evolving suicidal process.

The findings also confirm that suicide is commonly preceded by a process of increasing suicidality, starting with thoughts about taking one's life and evolving through communication and possible suicide attempts.

The results of this study are partially similar to the study of Runeson et al. (1996) who also found a difference in duration of the suicidal process between adjustment disorder and schizophrenia. In contrast, our study identified a difference in duration of the process between adjustment disorder and depressive disorder, which could not be found in the Runeson-study. Although it is reasonable to assume that this difference in results could be associated with the different measure used as starting-point of the suicidal process, i.e. first suicidal ideation in the present study and first reported communication or observed attempt in the Runeson-study, the results of this study also showed a significant difference in the suicidal process, measured from first reported communication.

To conclude, this study suggests that the suicidal process is to a large extent different in victims diagnosed with adjustment disorder due to its rapidly evolving course resulting in less time and possibilities to assess the suicidal risk and to intervene.

Although adjustment disorders are often associated with less severe psychiatric symptoms and a comparatively beneficial outcome, the diagnose of adjustment disorder should thus include a thorough assessment of suicidal ideations in view of the prevention of suicide.

Although the small sample size is an obvious limitation of this study, it is important to consider the small geographical area and population size of the selected area in this study. The annual number of adolescent suicides in Flanders is approximately 30, which means that almost one fifth of all adolescent suicides in Flanders during 1997–2001 is covered in

this study. The limitation of this study also comes from the use of retrospective interviews of relatives although there is evidence indicating that the information obtained from psychological autopsy studies is both reliable and valid (Brent, 1989; Kelly and Mann, 1996). Personal journals, letters and notes were used to assess first signs of suicidal ideation but there is always the difficulty to ascertain with precision the first signs of suicidal ideation.

Nevertheless, more comprehensive research is needed to further examine the possible implications of adjustment disorders in the course of the suicidal process.

Acknowledgements

The study was supported by the Fund for Scientific Research—Flanders (Belgium).

References

- Beck, A., Schuyler, D., Herman, I., 1974. In: Beck, A., Resnik, H., Lettieri, D. (Eds.), *Development of Suicide Intent Scales*. Charles Press, Bowie, MD.
- Bhatia, M.S., Aggarwal, N.K., Aggarwal, B.B.L., 2000. Psychosocial profile of suicide ideators, attempters and completers in India. *Int. J. Soc. Psychiatry* 46, 155–163.
- Brent, D.A., 1989. The psychological autopsy: methodological considerations for the study of adolescent suicide. *Suicide Life-Threat. Behav.* 19, 43–57.
- Cavanagh, J., Owens, D., Johnstone, E., 1999. Suicide and undetermined death in south east Scotland. A case-control study using the psychological autopsy method. *Psychol. Med.* 29, 1141–1149.
- Despland, J.N., Monod, L., Ferrero, F., 1995. Clinical relevance of adjustment disorder in DSM-III-R and DSM-IV. *Compr. Psychiatry* 36, 454–460.
- Greenberg, W.M., Rosenfield, D.M., Ortega, E.A., 1995. Adjustment disorder as an admission diagnosis. *Am. J. Psychiatry* 152, 459–461.
- Henriksson, M., Aro, H., Martunen, M., Heikinen, M., Isometsa, E., Kuoppasalmi, K., Lonnqvist, J., 1993. Mental disorders and comorbidity in suicide. *Am. J. Psychiatry* 150, 935–940.
- Ho Kong Wai, B., Hong, C., Heok, K.E., 1999. Suicidal behavior among young people in Singapore. *Gen. Hosp. Psych.* 21, 128–133.
- Houston, K., Hawton, K., Shepperd, R., 2001. Suicide in young people aged 15–24: a psychological autopsy study. *J. Affect. Disord.* 63, 159–170.
- Isometsä, E.T., 2001. Psychological autopsy studies—a review. *Eur. Psychiatr.* 16, 379–385.

- Jones, R., Yates, W.R., Williams, S., Zhou, M., Hardman, L., 1999. Outcome for adjustment disorder with depressed mood. Comparison with other mood disorders. *J. Affect. Disord.* 55, 55–61.
- Kelly, T.M., Mann, J.J., 1996. Validity of DSM-III-R diagnosis by psychological autopsy: a comparison with clinician ante-mortem diagnosis. *Acta Psychiatr. Scand.* 94, 337–343.
- Kovacs, M., Gatsonis, C., Pollock, M., Parrone, P.L., 1994. A controlled prospective study of DSM-III adjustment disorder in childhood—short term prognosis and long term, predictive validity. *Arch. Gen. Psychiatry* 51, 535–541.
- Marttunen, M.J., Hillevi, M.A., Henriksson, M.M., Lönnqvist, J.K., 1991. Mental disorders in adolescent suicide. DSM-III-R axes I and II diagnoses in suicides among 13- to 19-year-olds in Finland. *Arch. Gen. Psychiatry* 48, 834–839.
- Newcorn, J.H., Strain, J., 1992. Adjustment disorder in children and adolescents. *J. Am. Acad. Child Adolesc. Psych.* 31, 318–327.
- Rich, C.L., Sherman, M., Fowler, R.C., 1990. San Diego suicide study: the adolescents. *Adolescence* 25, 855–865.
- Runeson, B.S., Beskow, J., Waern, M., 1996. The suicidal process in suicides among young people. *Acta Psychiatr. Scand.* 93, 35–42.
- Schaffer, D., Gould, M., Fisher, P., Trautman, P., Moreau, D., Kleinman, M., Flory, M., 1996. Psychiatric diagnosis in child and adolescent suicide. *Arch. Gen. Psychiatry* 53, 339–348.
- Skopek, M.A., Perkins, R., 1998. Deliberate exposure to motor vehicle exhaust gas: the psychosocial profile of attempted suicide. *Aust. N. Z. J. Psychiatry* 32, 830–838.
- Snyfer, S., Strain, J.J., Wolf, D., 1990. Differentiating major depression from adjustment disorders with depressed mood in the medical setting. *Gen. Hosp. Psych.* 12, 159–165.
- van Heeringen, K., 2001. The suicidal process and related concepts. In: van Heeringen, K. (Ed.), *Understanding Suicidal Behaviour. The Suicidal Process Approach to Research, Treatment and Prevention*. Wiley, Chichester, pp. 3–15.